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July 27, 2006

**Signature on File**

TO: Mr. Frank Zagari, Principal  
**Indian Ridge Middle School**

FROM: Kenneth I. Partee, Project Manager Occupational Health and Environmental Control  
Risk Management Department

SUBJECT: Indoor Air Quality (IAQ) Assessment  
**Portable 397C**

On July 26, 2006 I conducted an assessment of Portable 397C at **Indian Ridge Middle School**. This evaluation included observations of the flooring system, ceiling tiles, false ceiling plenum, environmental surfaces, interior and exterior walls, and the accessible ventilation equipment. Additionally, environmental parameter measurements were taken to include temperature, relative humidity, and carbon dioxide. The detailed findings, along with the recommended corrective action can be found on the attached IAQ Assessment Worksheets.

The IAQ assessment did identify one or more existing conditions impacting IAQ and has generated appropriate work orders to correct deficiencies in systems and maintenance that could contribute to decreased indoor air quality. At the time of the assessment, these concerns were not an immediate health or safety concern to building occupants. However, due to individual sensitivities and predisposing health factors, it is possible that some building occupants may elicit a health response to agents and / or conditions identified during the evaluation. Therefore, to further improve IAQ, prevent development of future IAQ-related problems, and to reduce the potential for IAQ-related complaints by building occupants, the IAQ Assessment Team recommends appropriate follow up of each item identified and listed in the attached evaluation.

Should any questions arise, or if the current concerns continue after the attached recommendations have been addressed, please feel free to contact me at 754-321-3200.

cc: Dr. Verda Farrow, Area Superintendent  
Kevin Sawyer, Area Director  
Jeffrey S. Moquin, Director, Risk Management  
James Carballo, Project Manager, Facilities and Construction Management  
Ralph Eckhardt, Broward Teachers Union  
Mark Dorsett, Manager 1, Physical Plant Operations Division, Zone 1  
Roy Norton, Manager Custodial/Grounds, Physical Plant Operations Division  
Robert Krickovich, Coordinator, LEA, Facilities and Construction Management

KP/tc  
Enc.

# IAQ Assessment

Location Number   
 Evaluation Requested   
 Evaluation Date

Indian Ridge Middle School

Time of Day

Outdoor Conditions      Temperature       Relative Humidity       Ambient CO2

Fish	Temperature	Range	Relative Humidity	Range	CO2	Range	# Occupants
<input type="text" value="P - 397C"/>	<input type="text" value="75.4"/>	<input type="text" value="72 - 78"/>	<input type="text" value="46.4"/>	<input type="text" value="30% - 60%"/>	<input type="text" value="523"/>	<input type="text" value="Max 700 &gt; Ambient"/>	<input type="text" value="1"/>
Noticeable Odor	<input type="text" value="Yes"/>	Visible water damage / staining?	<input type="text" value="Yes"/>	Visible microbial growth?	<input type="text" value="No"/>	Amount of material affected	<input type="text" value="1 ceiling tile"/>
Ceiling Type	<input type="text" value="2 x 4 Lay In"/>		<input type="text" value="Yes"/>		<input type="text" value="No"/>		<input type="text" value="1 ceiling tile"/>
Wall Type	<input type="text" value="Tackboard"/>		<input type="text" value="Yes"/>		<input type="text" value="No"/>		<input type="text" value="3 - 4'x8' Sections"/>
Flooring	<input type="text" value="Tile"/>		<input type="text" value="No"/>		<input type="text" value="No"/>		<input type="text" value="None"/>

	Clean	Minor Dust / Debris	Needs Cleaning	Corrective Action Required
Ceiling	<input type="text" value="No"/>	<input type="text" value="Yes"/>	<input type="text" value="Yes"/>	<input type="text" value="Replace ceiling tile"/>
Walls	<input type="text" value="No"/>	<input type="text" value="Yes"/>	<input type="text" value="Yes"/>	<input type="text" value="Repair/replace as appropriate"/>
Flooring	<input type="text" value="Yes"/>	<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text" value=""/>
HVAC Supply Grills	<input type="text" value="No"/>	<input type="text" value="Yes"/>	<input type="text" value="Yes"/>	<input type="text" value="Clean with Wexcide disinfectant"/>
HVAC Return Grills	<input type="text" value="No"/>	<input type="text" value="Yes"/>	<input type="text" value="Yes"/>	<input type="text" value="Clean with Wexcide disinfectant"/>
Ceiling at Supply Grills	<input type="text" value=""/>	<input type="text" value=""/>	<input type="text" value=""/>	<input type="text" value="N/A"/>
Surfaces in Room	<input type="text" value="Yes"/>	<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text" value=""/>

## Observations

### Findings:

- Moisture in light diffusers
- Stained ceiling tile at emergency light
- Dust and debris on HVAC supply and return grills
- Dust and debris on A/C filters
- Elevated moisture levels in West (20-50), East (20-80+) and South (18-35+) walls and 3 wall sections are bowed
- Dust and debris on HVAC coils

### Recommendations:

#### Site Based Maintenance:

- Clean HVAC supply and return grills with Wexcide disinfectant solution
- Remove and replace A/C filters
- Ensure that both A/C units are running and moderated to control elevated moisture
- Continue to monitor this location for any signs of microbial growth as well as dust and debris accumulation and clean as appropriate

#### Physical Plant Operations:

- Evaluate cause of elevated moisture in West, East and South walls and repair. Replace wall material as appropriate.
- Evaluate cause of stained ceiling tile at emergency light and repair. Replace stained ceiling tile.
- Clean HVAC coils
- Note - There is no insulation installed in ceiling